

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- REVISED

PERMITTEE

Imageworks Manufacturing, Inc.
Attn: Mark Zickert
49 South Street
Park Forest, Illinois 60466

Application No.: 74030060

I.D. No.: 031111AAU

Applicant's Designation:

Date Received: October 4, 2013

Subject: Specialty Printing Facility

Date Issued: May 2, 2014

Expiration Date: August 2, 2022

Location: 49 South Street, Park Forest, Cook County, 60466

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of four (4) silkscreen units (Unit 1, Unit 2, Unit 3, and Unit 4), two (2) sheetfed litho printing presses (Unit 5 and Unit 9), one (1) narrow web flexographic printing press and one (1) paper coater (Unit 7) pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued:

- i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year of combination of such HAPs). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- ii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- iii. To establish federally enforceable production and operating limitations, which restrict the potential to emit for VOM to less than 25 tons per year so that the source is not subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units).

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permit(s) for this location.

- 2a. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- b. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 3a. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
- b. Pursuant to 35 Ill. Adm. Code 218.187(a)(1), on and after January 1, 2012 except as provided in 35 Ill. Adm. Code 218.187(a)(2), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations which use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more of VOM from cleaning operations at the source, in the absence of air pollution control equipment. For purposes of 35 Ill. Adm. Code 218.187, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;
- c. Pursuant to 35 Ill. Adm. Code 218.187(b), no owner or operator of a source subject to 35 Ill. Adm. Code 218.187 shall perform any cleaning operation subject to 35 Ill. Adm. Code 218.187 unless the owner or operator meets the requirements in 35 Ill. Adm. Code 218.187(b)(1), (b)(2), or (b)(3):
- i. The VOM content of the as-used cleaning solutions does not exceed the following emissions limitations:

Cleaning of ink application equipment:

	<u>kg/l</u>	<u>lb/gal</u>
Flexographic printing that does not print flexible packaging	0.10	0.83

Or,

- ii. The composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20°C (68°F);
- d. Pursuant to 35 Ill. Adm. Code 218.401(a)(2)(A), no owner or operator of a subject flexographic or rotogravure printing line shall apply at any time any coating or ink unless the VOM content does not exceed the limitation specified in either 35 Ill. Adm. Code 218.401(a)(1) or (a)(2), as applicable. Compliance with 35 Ill. Adm. Code 218.401 must be demonstrated through the applicable coating or ink analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.404(c). As an alternative to compliance with 35 Ill. Adm. Code 218.401(a), a subject printing line may meet the requirements of 35 Ill. Adm. Code 218.401(b) or (c). On and after August 1, 2010 for owners operators of flexographic or rotogravure printing lines that do not print flexible packaging, either:
 - i. Forty percent VOM by volume of the coating and ink (minus water and any compounds which are specifically exempted from the definition of VOM); or
 - ii. Twenty-five percent VOM by volume of the volatile content in the coating and ink;
- e. Pursuant to 35 Ill. Adm. Code 218.402(d), once subject to the limitations of 35 Ill. Adm. Code 218.401, a flexographic or rotogravure printing line is always subject to the limitations of 35 Ill. Adm. Code 218.401.
- 4a. Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.
- b. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.
- c. This permit is issued based on the paper coater not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Paper and Other Web Coating, 40 CFR 63 Subpart JJJJ. Pursuant to 40 CFR 63.3290, the provisions of 40 CFR 63 Subpart JJJJ apply to each new and existing facility that is a major source of HAP, as defined in 40 CFR 63.2, at which web coating lines are operated.
- d. This permit is issued based upon the flexographic printing not being subject to the National Emission Standard for Hazardous Air Pollutants

(NESHAP) for the Printing and Publishing Industry, 40 CFR 63 Subpart KK. This is a result of the federally enforceable limitations of this permit restricting potential HAP emissions to below major source threshold levels defined in 40 CFR 63.2.

5. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 6a. This permit is issued based on the solvent cleaning operations associated with the silkscreen units at this source not being subject to the requirements of 35 Ill. Adm. Code 218.187(b). Pursuant to 35 Ill. Adm. Code 218.187(a)(1), on and after January 1, 2012: Except as provided in 35 Ill. Adm. Code 218.187(a)(2), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations that use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more of VOM, in the absence of air pollution control equipment, from cleaning operations at the source other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2). For purposes of 35 Ill. Adm. Code 218.187, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;
- b. Pursuant to 35 Ill. Adm. Code 218.187(a)(2), notwithstanding 35 Ill. Adm. Code 218.187(a)(1):
 - i. The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g):
 - A. Janitorial cleaning;
 - B. Stripping of cured coatings, inks, or adhesives;
 - C. Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning.
 - ii. Cleaning operations for emission units within the following categories shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g):

- A. Lithographic printing;
 - B. Paper, film, and foil coating;
- iii. The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (f), and (g):
- A. Cleaning of metering rollers, dampening rollers, and printing plates;
 - B. Cleaning of plastic-based or vinyl-based substrates for use in the screen printing process when using UV curable ink and coating systems;
- c. Pursuant to 35 Ill. Adm. Code 218.204(c)(3), the paper coating limitation set forth in 35 Ill. Adm. Code 218.204(c) shall not apply to any owner or operator of any paper coating line on which flexographic, rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in 35 Ill. Adm. Code 218 Subpart H. In addition, screen printing on paper is not regulated as paper coating, but is regulated under 35 Ill. Adm. Code 218 Subpart TT. On and after May 1, 2011, the paper coating limitation shall also not apply to coating performed on or in-line with any digital printing press, or to size presses and on-machine coaters on papermaking machines applying sizing or water-based clays.
- d. This permit is issued based on the paper coating operations at this source not being subject to the limitations of 35 Ill. Adm. Code 218 Subpart F (Coating Operations). Pursuant to 35 Ill. Adm. Code 218.208(a), , the limitations of 35 Ill. Adm. Code 218 Subpart F shall not apply to coating lines within a source, that otherwise would be subject to the same subsection of 35 Ill. Adm. Code 218.204 (because they belong to the same coating category, e.g., can coating), provided that combined actual emissions of VOM from all lines at the source subject to that subsection never exceed 6.8 kg/day (15 lb/day) before the application of capture systems and control devices. (For example, can coating lines within a source would not be subject to the limitations of 35 Ill. Adm. Code 218.204(b) if the combined actual emissions of VOM from the can coating lines never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices.) Any owner or operator of a coating source shall comply with the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(a) if total VOM emissions from the subject coating lines are always less than or equal to 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices and, therefore, are not subject to the limitations of 35 Ill. Adm. Code 218.204. Once a category of coating lines at a source is subject to the limitations in 35 Ill. Adm. Code 218.204 the coating lines are always subject to the limitations in 35 Ill. Adm. Code 218.204.

- e. This permit is issued based upon the sheetfed lithographic printing presses at this source not being subject to the requirements of 35 Ill. Adm. Code 218.407 (Emission Limitations and Control Requirements for Lithographic Printing Lines). Pursuant to 35 Ill. Adm. Code 218.405(c)(2), on and after August 1, 2010 the requirements in 35 Ill. Adm. Code 218.407(a)(1)(A) and (a)(2) through (a)(5) and all applicable provisions in 35 Ill. Adm. Code 218.409 through 218.411 shall apply to all owners or operators of lithographic printing lines if the combined emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) shall ever equal or exceed 6.8 kg/day (15 lbs/day), calculated in accordance with 35 Ill. Adm. Code 218.411(b)(1)(B), before the application of capture systems and control devices.
- f. This permit is issued based upon the screen printing lines not being subject to the control requirements of 35 Ill. Adm. Code 218 Subpart TT (Other Emission Units). This is a result of the federally enforceable production and operating limitations of this permit, which restrict the maximum theoretical emissions of VOM from this facility to less than 100 tons per year and the potential to emit for VOM emissions to less than 25 tons per year.
- g. Pursuant to 35 Ill. Adm. Code 218.402(b), upon achieving compliance with 35 Ill. Adm. Code 218 Subpart H, the flexographic and rotogravure printing lines are not required to meet 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302). Flexographic and rotogravure printing lines exempt from 35 Ill. Adm. Code 218 Subpart H are subject to 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302). Rotogravure or flexographic equipment used for both roll printing and paper coating is subject to 35 Ill. Adm. Code 218 Subpart H.
- 7a. Pursuant to 35 Ill. Adm. Code 218.187(c), the owner or operator of a subject source shall demonstrate compliance with 35 Ill. Adm. Code 218.187 by using the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.187(g) and by complying with the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.187(e).
- b. Pursuant to 35 Ill. Adm. Code 218.187(d), the owner or operator of a source subject to the requirements of 35 Ill. Adm. Code 218.187 shall comply with the following for each subject cleaning operation:
 - i. Cover open containers and properly cover and store applicators used to apply cleaning solvents;
 - ii. Minimize air circulation around the cleaning operation;
 - iii. Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;

- iv. Utilize equipment practices that minimize emissions.
- 8a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- b. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- c. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
- i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
 - iv. Location of unloading and transporting operations with pollution control equipment;
 - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
 - vi. Estimated frequency of application of dust suppressants by location of materials; and
 - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- d. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with

35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.

9. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- 10a. Usage of raw materials and VOM emissions from the silkscreen units (Unit 1, Unit 2, Unit 3, and Unit 4) and associated cleaning operations shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
1.40	14.00	1.40	14.00

These limits are based on the maximum material usage and the maximum VOM content.

- b. Usage of raw materials and VOM emissions from Paper Coater (Unit 7) shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>(lbs/Day)</u>	<u>(Tons/Year)</u>	<u>(lbs/Day)</u>	<u>(Tons/Year)</u>
14.99	2.74	14.99	2.74

These limits are based on the exemption levels for 35 Ill. Adm. Code 218 Subpart F specified in 35 Ill. Adm. Code 218.208(a) and VOM emissions calculated using a mass balance.

- c. The VOM and HAP emissions from the silk screen units and the coater shall be calculated using the following equation:

$$E = [\sum P_i \times d_i \times C_i] / 2,000$$

where:

E = VOM/HAP emissions (tons);

P_i = Usage coating, solvent and other VOM containing materials (gallons);

d_i = Density of coating, solvent and other VOM containing materials(lbs/gallon); and

C_i = VOM/HAP content of raw material P_i used (% by Weight);

- d. Usage of raw materials and VOM emissions from the Sheetfed Litho Printing Presses (units 5 & 9) shall not exceed the following limits:

VOM Emissions	
<u>(lbs/Day)</u>	<u>(Tons/Year)</u>
14.99	2.74

These limits are based on the applicability levels for 35 Ill. Adm. Code 218 Subpart H specified in 35 Ill. Adm. Code 218.405(c)(2) and VOM emissions calculated in accordance with 35 Ill. Adm. Code 218.411 (b)(1)(B).

- e. Pursuant to 35 Ill. Adm. Code 218.411(b)(1)(B), VOM emissions from the sheetfed Litho Printing Press shall be based on the following:
 - i. Calculations that demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source do not equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, as follows:
 - A. To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
 - B. To determine VOM emissions from inks used on lithographic printing lines at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing lines; and
 - C. To determine VOM emissions from cleaning solutions used on lithographic printing lines at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is demonstrated to be less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor is used.

- f. VOM emissions and operation of the flexographic printing press shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Inks & Coatings	0.021	0.21	0.021	0.21
Cleaning Solvents	0.46	4.58	0.23	2.29

These limits are based on the maximum material usage, material balance and 50 percent retention for cleaning solvents with a vapor pressure of 10 mmHg or less at 20 degrees Celsius.

- g. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.79 tons/month and 7.9 tons/year of any single HAP and 1.99 tons/month and 19.9 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
- h. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 11a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide,

without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 12 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 12a. Pursuant to 35 Ill. Adm. Code 218.404(a), the VOM content of each coating and ink and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.404.
- b. Pursuant to 35 Ill. Adm. Code 218.409(c), testing to demonstrate compliance with the VOM content limitations in 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), (a)(3) and (a)(4)(A), and to determine the VOM content of fountain solutions, fountain solution additives, cleaning solvents, cleaning solutions, and inks (pursuant to the requirements of 35 Ill. Adm. Code 218.411(a)(1)(B), (b)(1)(B), or (b)(2)(B), as applicable, shall be conducted upon request of the Illinois EPA or as otherwise specified in 35 Ill. Adm. Code 218 Subpart H, as follows:
 - i. The applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) shall be used; provided, however, Method 24 shall be used to demonstrate compliance; or
 - ii. The manufacturer's specifications for VOM content for fountain solution additives, cleaning solvents, and inks may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in 35 Ill. Adm. Code 218.105(a); provided, however, Method 24 shall be used to determine compliance.
 - c. Pursuant to 35 Ill. Adm. Code 218.187(g)(1), testing to demonstrate compliance with the requirements of 35 Ill. Adm. Code 218.187 shall be conducted by the owner or operator within 90 days after a request by the Illinois EPA, or as otherwise specified in 35 Ill. Adm. Code 218.187. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Illinois EPA in writing 30 days in advance of conducting the testing to allow the Illinois EPA to be present during the testing;
 - d. Pursuant to 35 Ill. Adm. Code 218.187(g)(2), testing to demonstrate compliance with the VOM content limitations in 35 Ill. Adm. Code 218.187(b)(1), and to determine the VOM content of cleaning solvents and cleaning solutions, shall be conducted as follows:

- i. The applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) shall be used, provided; however, Method 24 shall be used to demonstrate compliance; or
 - ii. The manufacturer's specifications for VOM content for cleaning solvents may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in 35 Ill. Adm. Code 218.105(a); provided, however, Method 24 shall be used to determine compliance. In the event of any inconsistency between a Method 24 test and the manufacturer's specifications, the Method 24 test shall govern;
- e. Pursuant to 35 Ill. Adm. Code 218.187(g)(3), testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110.
13. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 14a. Pursuant to 35 Ill. Adm. Code 218.187(e)(3), all sources complying with 35 Ill. Adm. Code 218.187 pursuant to the requirements of 35 Ill. Adm.

Code 218.187(b)(1) shall collect and record the following information for each cleaning solution used:

- i. For each cleaning solution which is prepared at the source with automatic equipment:
 - A. The name and identification of each cleaning solution;
 - B. The VOM content of each cleaning solvent in the cleaning solution;
 - C. Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
 - D. The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
 - E. The VOM content of the as-used cleaning solution with supporting calculations; and
 - F. A calibration log for the automatic equipment, detailing periodic checks.
 - ii. For each batch of cleaning solution which is not prepared at the source with automatic equipment:
 - A. The name and identification of each cleaning solution;
 - B. Date, time of preparation, and each subsequent modification of the batch;
 - C. The VOM content of each cleaning solvent in the cleaning solution;
 - D. The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
 - E. The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are not prepared at the site but are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in 35 Ill. Adm. Code 218.105(a).
- b. Pursuant to 35 Ill. Adm. Code 218.187(e)(4), all sources complying with 35 Ill. Adm. Code 218.187 pursuant to the requirements of 35 Ill. Adm.

Code 218.187(b)(2) shall collect and record the following information for each cleaning solution used:

- i. The name and identification of each cleaning solution;
 - ii. Date, time of preparation, and each subsequent modification of the batch;
 - iii. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110;
 - iv. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
 - v. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110.
- c. Pursuant to 35 Ill. Adm. Code 218.187(e)(10), all records required by 35 Ill. Adm. Code 218.187(e) shall be retained by the source for at least three years and shall be made available to the Illinois EPA upon request.
- d. Pursuant to 35 Ill. Adm. Code 218.404(c)(2), any owner or operator of a printing line subject to the limitations of 35 Ill. Adm. Code 218.401 and complying by means of 35 Ill. Adm. Code 218.401(a) shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or 35 Ill. Adm. Code 218.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of 35 Ill. Adm. Code 218.401 and complying by means of 35 Ill. Adm. Code 218.401(a) shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
- i. The name and identification number of each coating, and ink as applied on each printing line.
 - ii. The VOM content of each coating and ink as applied each day on each printing line.
- e. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(B), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall on and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in 35 Ill. Adm. Code 218.187 (a)(2):
- i. The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;

- ii. The VOM content of each cleaning solution as applied in each cleaning operation;
 - iii. The weight of VOM per volume and the volume of each as-used cleaning solution; and
 - iv. The total monthly VOM emissions from cleaning operations at the source.
- f. Pursuant to 35 Ill. Adm. Code 218.211(c)(3), any owner or operator of a coating line that is exempted from the limitations of 35 Ill. Adm. Code 218.204 because of 35 Ill. Adm. Code 218.208(a) or (b) shall comply with the following: For sources exempt under 35 Ill. Adm. Code 218.208(a), on and after a date consistent with 35 Ill. Adm. Code 218.106, the owner or operator of a coating line or group of coating lines referenced in 35 Ill. Adm. Code 218.211(c) shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
- i. The name and identification number of each coating as applied on each coating line; and
 - ii. The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line.
- g. Pursuant to 35 Ill. Adm. Code 218.411(b)(1)(F), for sources complying with 35 Ill. Adm. Code 218.411(b)(1)(C), comply with the following: Maintain material use records showing that the source uses less than the amount of material specified in 35 Ill. Adm. Code 218.411(b)(1)(C)(i) and (b)(1)(C)(ii) during each calendar month, or, if the source exceeds the material use limitations, records showing that the source exceeded the limitations but did not emit 6.8 kg/day (15 lbs/day) or more of VOM, and provide such records to the Illinois EPA upon request. On and after January 1, 2012, such records shall include the name, identification number, and VOM content of each cleaning solvent and fountain solution additive used per calendar month, the volume of each cleaning solvent and fountain solution additive used per calendar month for each sheetfed and nonheatset web offset lithographic printing operation, and the weight of each cleaning solvent, ink, and fountain solution additive used per calendar month for each heatset web offset lithographic printing operation;
- h. Pursuant to 35 Ill. Adm. Code 218.411(c), unless complying with 35 Ill. Adm. Code 218.411(b)(1)(C) and (b)(1)(F), an owner or operator of lithographic printing lines subject to the requirements of 35 Ill. Adm. Code 218.411(a) or (b) shall collect and record either the information specified in 35 Ill. Adm. Code 218.411(c)(1) or (c)(2) for all lithographic printing lines at the source:
- i. Standard recordkeeping, including the following:

- A. The name and identification of each fountain solution additives, lithographic ink, and cleanup solvent used on any lithographic printing lines, recorded each month;
 - B. A daily record which shows whether a lithographic printing line at the source was in operation on that day;
 - C. The VOM content and the volume of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
 - D. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; and
 - E. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), (b)(1)(B), or (b)(2)(B), as applicable.
- ii. Purchase and inventory recordkeeping, including the following:
- A. The name, identification, and VOM content of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
 - B. Inventory records from the beginning and end of each month indicating the total volume of each fountain solution additive, lithographic ink, and cleaning solvent to be used on any lithographic printing line at the source;
 - C. Monthly purchase records for each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line at the source;
 - D. A daily record which shows whether a lithographic printing line at the source was in operation on that day;
 - E. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to 35 Ill. Adm. Code 218.411(c)(2)(A), (c)(2)(B), and (c)(2)(C); and

- F. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), (b)(1)(B), or (b)(2)(B), as applicable.
 - iii. Pursuant to 35 Ill. Adm. Code 218.411(h), the owner or operator shall maintain all records required by 35 Ill. Adm. Code 218.411 at the source for a minimum period of three years and shall make all records available to the Illinois EPA upon request.
- 15a. The Permittee shall maintain monthly records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Names and amounts of each ink, fountain solutions, coatings and cleaning solvents used (tons/month and tons/year);
 - ii. VOM and HAP content of each ink, fountain solutions, coatings and cleaning solvents used (% by weight);
 - iii. Density of each ink, fountain solutions, coatings and cleaning solvents used (lbs/gallon); and
 - iv. Monthly and annual emissions of VOM and HAP from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 16a. Pursuant to 35 Ill. Adm. Code 218.411(b)(1), by August 1, 2010, or upon initial start-up of a new lithographic printing line, whichever is later, and upon modification of a lithographic printing line, an owner or operator of lithographic printing lines exempt from the limitations in 35 Ill. Adm. Code 218.407 because of the criteria in 35 Ill. Adm. Code 218.405(c)(2) shall submit a certification to the Illinois EPA that includes the information specified in either 35 Ill. Adm. Code 218.411(b)(1)(A), (b)(1)(B), and (b)(1)(D) or 35 Ill. Adm. Code 218.411(b)(1)(A) and (b)(1)(C), as applicable. An owner or operator complying with 35 Ill. Adm. Code 218.411(b)(1)(B) shall also comply with the requirements in 35 Ill. Adm. Code 218.411(b)(1)(E). An owner or operator complying with 35 Ill. Adm. Code 218.411(b)(1)(C) shall also comply with the requirements in 35 Ill. Adm. Code 218.411(b)(1)(F):
- i. A declaration that the source is exempt from the requirements in 35 Ill. Adm. Code 218.407 because of the criteria in 35 Ill. Adm. Code 218.405(c)(2);

- ii. Calculations that demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source do not equal or exceed 6.8 kg/day (15 lbs/day) before the use of capture systems and control devices, as follows:
 - A. To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
 - B. To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the test methods and procedures set forth in 35 Ill. Adm. Code 218.409(c) shall be used;
 - C. To determine VOM emissions from inks used on lithographic printing lines at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing lines; and
 - D. To determine VOM emissions from cleaning solutions used on lithographic printing lines at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is demonstrated to be less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor is used.
- iii. As an alternative to the calculations in 35 Ill. Adm. Code 218.411(b)(1)(B), a statement that the source uses less than the amount of material specified in 35 Ill. Adm. Code 218.411(b)(1)(C)(i) or (ii), as applicable, during each calendar month. A source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM based upon compliance with such material use limitations. If the source exceeds this amount of material use

in a given calendar month, the owner or operator must, within 15 days after the end of that month, complete the emissions calculations of 35 Ill. Adm. Code 218.411(b)(1)(B) to determine daily emissions for applicability purposes. If the source ever exceeds this amount of material use for six consecutive calendar months, it is no longer eligible to use 35 Ill. Adm. Code 218.411(b)(1)(C) as an alternative to the calculations in 35 Ill. Adm. Code 218.411(b)(1)(B). If a source has both heatset web offset and either nonheatset web offset or sheetfed lithographic printing operations, or has all three types of printing operations, the owner or operator may not make use of this alternative and must use the calculations in 35 Ill. Adm. Code 218.411(b)(1)(B).

- A. The sum of all sheetfed and nonheatset web offset lithographic printing operations at the source: 242.3 liters (64 gallons) of cleaning solvent and fountain solution additives, combined; or
- B. The sum of all heatset web offset lithographic printing operations at the source: 204.1 kg (450 lbs) of ink, cleaning solvent, and fountain solution additives, combined;
- iv. A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with 35 Ill. Adm. Code 218.409(c)(1);
- v. For sources complying with 35 Ill. Adm. Code 218.411(b)(1)(B), notify the Illinois EPA in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. If such emissions of VOM at the source equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), the source shall comply with the requirements in 35 Ill. Adm. Code 218.411(b)(2)
- vi. For sources complying with 35 Ill. Adm. Code 218.411(b)(1)(C), comply with the following: Notify the Illinois EPA in writing if the source exceeds the material use limitations for six consecutive calendar months, or if the source changes its method of compliance from 35 Ill. Adm. Code 218.411(b)(1)(C) to 35 Ill. Adm. Code 218.411(b)(1)(B), within 30 days after the event occurs;
- b. Pursuant to 35 Ill. Adm. Code 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the

requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.

- c. Pursuant to 35 Ill. Adm. Code 218.187(e)(9), all sources subject to the requirements of 35 Ill. Adm. Code 218.187(b) and (d) shall notify the Illinois EPA of any violation of 35 Ill. Adm. Code 218.187(b) or (d) by providing a description of the violation and copies of records documenting the violation to the Illinois EPA within 30 days following the occurrence of the violation;
- d. Pursuant to 35 Ill. Adm. Code 218.404(c), any owner or operator of a printing line subject to the limitations of 35 Ill. Adm. Code 218.401 and complying by means of 35 Ill. Adm. Code 218.401(a) shall comply with the following:
 - i. On and after a date consistent with 35 Ill. Adm. Code 218.106, or 35 Ill. Adm. Code 218.403(e), as applicable, the owner or operator of a subject printing line shall notify the Illinois EPA in the following instances:
 - A. Any record showing violation of 35 Ill. Adm. Code 218.401(a) shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
 - B. At least 30 calendar days before changing the method of compliance with 35 Ill. Adm. Code 218.401 from 35 Ill. Adm. Code 218.401(a) to 35 Ill. Adm. Code 218.401(b) or (c), the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.404(d)(1) or (e)(1), respectively. Upon changing the method of compliance with 35 Ill. Adm. Code 218.401 from 35 Ill. Adm. Code 218.401(a) to 35 Ill. Adm. Code 218.401(b) or (c), the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.404(d) or (e), respectively.
- 17a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

It should be noted that the facility operates various permit exempt equipment: gas-fired drying oven (35 Ill. Adm. Code 201.146 fff), brass die cutter, rotary die cutter, Claire surface finisher (35 Ill. Adm. Code 201.146 aa), Toray plate processor (35 Ill. Adm. Code 201.146 ll), corona treater (35 Ill. Adm. Code 201.146 ddd), comfort heater, hot water heater (35 Ill. Adm. Code 201.146 d), plate setter, image setter (35 Ill. Adm. Code 201.146 ff) and electric vacuum forming machine (35 Ill. Adm. Code 201.146 ii).

It should be noted this permit has been revised to incorporate the equipment in Construction Permit 13100006.

If you have any questions on this, please call David Hulskotter at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:DWH:psj

cc: Illinois EPA, FOS Region 1

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the Specialty Printing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 100 tons/year for VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)		
		HAPs	
	<u>VOM</u>	Single <u>HAP</u>	Combined <u>HAPs</u>
Silkscreen Units 1, 2, 3, & 4	14.00		
Paper Coater (Unit 7)	2.74		
Flexographic Printing Press	2.50		
Sheetfed Litho Printing, Presses (Unit 5 and Unit 9)	<u>2.74</u>	<u>-----</u>	<u>-----</u>
Totals	21.98	7.9	19.9